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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/721,965	11/25/2003	Donald B. Cameron	900093.92693	5917

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EXAMINER

ORDERS, CHRISTOPHER H

ART UNIT	PAPER NUMBER
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3746

DATE MAILED: 04/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/721,965

Applicant(s)

DONALD B. CAMERON ET AL.

Examiner

Christopher H. Orders

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 03 May 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date May 3, 2004.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Drawings***

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: "8" (fig. 1). Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

2. The disclosure is objected to because of the following informalities: The recitation of "driven magnet" (para. 009, ln. 4) is presumed to be --driven magnet 3-- to properly reference the drawings.

Appropriate correction is required.

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***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gergets et al. (5,165,868) in view of Behnke et al. (5,248,245) and Jezek (6,231,323).

Gergets et al. teach a positive displacement pump (2) driven by a magnetic coupling (col. 1, ln. 66-68) including a containment can (90) enclosing in an interior thereof a driven magnet (102) mounted on a pump drive shaft (120) and a driving magnet (80) exterior of the can (90), the driving magnet (80) being magnetically coupled to the driven magnet (102) (col. 3, ln. 59-62), the pump (2) also having a high pressure port (162), a low pressure port (160) and a positive displacement pumping mechanism (150, 154) in a pumping cavity (152) between the ports (162, 160), and having a pump flange (91) between the driven magnet (102) and the pumping cavity (inside housing 156), wherein two port passageways (136, 140) extend through the pump flange (bracket 124 is flanged) between the interior of the containment can (90) and the pumping cavity (inside housing 156); there is at least one said port passageway (136, 140) in communication with each of said high (162) and low pressure (160) ports (136 in communication with 162, 140 in communication with 160); wherein said at least one port passageway (140) provides communication through said pump flange (bracket 124 is flanged) between said low pressure port (160) and said interior of said containment can

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(90); and at least two port passageways (136, 140) extend through said pump flange (bracket 124 is flanged) between the interior of the containment can (90) and the pumping cavity (inside housing 156), at least one said port passageway (136, 140) communicating with each of said high pressure (162) and low pressure (162) ports. Gergets et al. do not expressly teach that at least one of said port passageways (136, 140) includes an orifice of an orifice size and the orifice size is adjustable by removability.

However, Behnke et al. teach a magnetically coupled pump with a cooling passageway (71) including an orifice (73) of an orifice size. Further, Jezek teaches an orifice plug (68) having an orifice (60) mounted in a passageway (66) that is adjustable by removability (col. 3, ln. 11-16). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the orifice of Behnke et al. and the ability to adjust it by removal of Jezek with the pump of Gergets et al. for the benefit of control over fluid flow to prevent boiling of the fluid running through the passageway which could damage the pump (Behnke et al. col. 5, ln. 4-9).

5. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gergets et al. (5,165,868) in view of Behnke et al. (5,248,245) and Jezek (6,231,323) as applied to claim 5 above, and further in view of Nguyen et al. (6,056,520).

Gergets et al. in view of Behnke et al. and Jezek teach many of the claim limitations, but do not expressly teach having orifices in both passageways. However, Nguyen et al. teach an orifice (74) in passage (68) and an orifice (formed within screw 26) in the passage extending through the shaft (14). It would have been obvious to one

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of ordinary skill in the art to combine the dual orifices of Nguyen et al. with the pump with adjustable orifice of Gergets in view of Behnke et al. and Jezek for the benefit of increased control over the prevention of boiling of the fluid which could damage the pump (Behnke et al. col. 5, ln. 4-9).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher H. Orders whose telephone number is (571) 272-7163. The examiner can normally be reached on Monday-Friday, 6:30am-3:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cheryl J. Tyler can be reached on (571) 272-4834. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CHO

  
**CHERYL TYLER**  
**SUPERVISORY PATENT EXAMINER**